Date: Friday, 18/07/2008 2:14:50 PM
User: Julie Lecocq

Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services	Drawing Name	: MIRROR ARM
Job Number	: 40667		
Estimate Number	: 10505		
P.O. Number	:	Part Number	: D2010103
This Issue	: 18/07/2008 S.O. No. :	Drawing Number	: D2010 REVD
Prsht Rev.	: NC	Project Number	: N/A
First Issue	: / / Type : SMALL /MED FAB	Drawing Revision	: D
Previous Run	: 39822	Material	:
Written By	:	Due Date	: 25/07/2008 Qty: _50_ Um: Each
Checked & Approved By	: JD 08.7.18		
Comment	: Est : F 02.08.21 Re-format; Added D2057 KJ/RF		
	Est Rev:G 08-05-27 as per ECN1195P DD verified by:EC		
	Est Rev:H 08-06-20 rev.D as per dwg DD verified by:EC		

Additional Product

Job Number:

Seq. #:	Machine Or Operation:	Description :
1.0	M304TR0500W049	304 RD Tube .500 x .049W

Comment: Qty.:   1.5750 f(s)/Unit   Total :   ~~47.2500 f(s)~~ ~~78.75~~ 82.
Material: 304/316 SS tubing 0.500" Dia. x 0.049" wall
(M304TR0500W049)   Batch No: M 108324   SB 08/07/23 ⑤⓪

2.0	BRAKE NC	NC BRAKE

Comment: BRAKE NC
Punch per Dwg. D2010-103-T1 and Spec Control Dwg D2727
Identify as D2010-103   SB 08/07/23 ⑤⓪

3.0	SMALL FAB 1	SMALL & MEDIUM FAB RESOURCE 1

Comment: SMALL & MEDIUM FAB RESOURCE 1   FF 08-07-24 ⑤⓪
1- Bend as per Dwg D2010 using bending Jig D2010-103T2
2- Deburr ends   08/07/23 ⑤⓪

4.0	D2057	Plug

Comment: Qty.:   1.0000 Each(s)/Unit   Total :   30.0000 Each(s)
Plug
Pick:

Qty	Part Number	Description	Batch		
1	D2057	Plug	B40048	FF 08-07-24	⑤⓪

Dart Aerospace Ltd

W/O:		**WORK ORDER CHANGES**						
DATE	**STEP**	**PROCEDURE CHANGE**	**By**	**Date**	**Qty**	**Approval** Chief Eng / Prod Mgr	**Approval** QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes (No) DQA: ⬜ Date: 08/07/28

QA: N/C Closed: _____ Date: _____

NCR:		**WORK ORDER NON-CONFORMANCE (NCR)**						
DATE	**STEP**	**Description of NC** Section A	**Corrective Action** Section B			**Verification** Section C	**Approval** Chief Eng	**Approval** QC Inspector
			Initial Chief Eng	**Action Description** Chief Eng	**Sign & Date**			

NOTE: Date & initial all entries

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services   **Drawing Name:** MIRROR ARM

Job Number: 40667   **Part Number:** D2010103

Job Number:

Seq. #:	Machine Or Operation:	Description :
5.0	SMALL FAB 1	SMALL & MEDIUM FAB RESOURCE 1

Comment: SMALL & MEDIUM FAB RESOURCE 1

1-flare before installling plug as per dwg D2010

2-Install D2057 plug as per Dwg D2010   *FF 08-07-24* (50)

6.0	QC5	INSPECT WORK TO CURRENT STEP

Comment: INSPECT WORK TO CURRENT STEP   *08/07/24 (x50) counted*

7.0	POWDER COATING	POWDER COATING

M 102316   (50x)

Comment: POWDER COATING
Powder Coat Black Sandtex (Ref: 4.3.5.7) as per QSI 005 4.3

START TIME: ___8:40___ oF
OVEN TEMPERATURE: ___320___   *M-L /08/07/26*
FINISH TIME: ___9:10___

8.0	QC3	INSPECT POWDER COAT/CHEMICAL CONVERSION

Comment: INSPECT POWDER COAT   *KS 08/07/28 (x50)*

9.0	PACKAGING 1	PACKAGING RESOURCE #1

Comment: PACKAGING RESOURCE #1
Identify and Stock
Location: ___ST 23 (overstocked)___ *08/07/28* (x50)

10.0	QC21	FINAL INSPECTION/W/O RELEASE

(50)

Comment: FINAL INSPECTION/W/O RELEASE   *D 08/07/28*

Job Completion   *mf 08-07-28*

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES						
DATE	**STEP**	**PROCEDURE CHANGE**	**By**	**Date**	**Qty**	**Approval** Chief Eng / Prod Mgr	**Approval** QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No   DQA: _____ Date: _____

QA: N/C Closed: _____   Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
			Corrective Action Section B			**Verification**	**Approval**	**Approval**
DATE	**STEP**	**Description of NC** Section A	**Initial** Chief Eng	**Action Description** Chief Eng	**Sign & Date**	Section C	Chief Eng	QC Inspector

NOTE: Date & initial all entries

D2010-101 MIRROR BRACKET
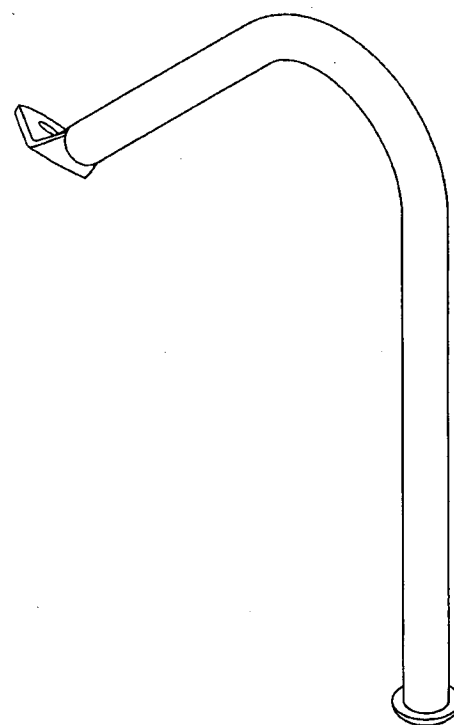
D2010-103 ARM
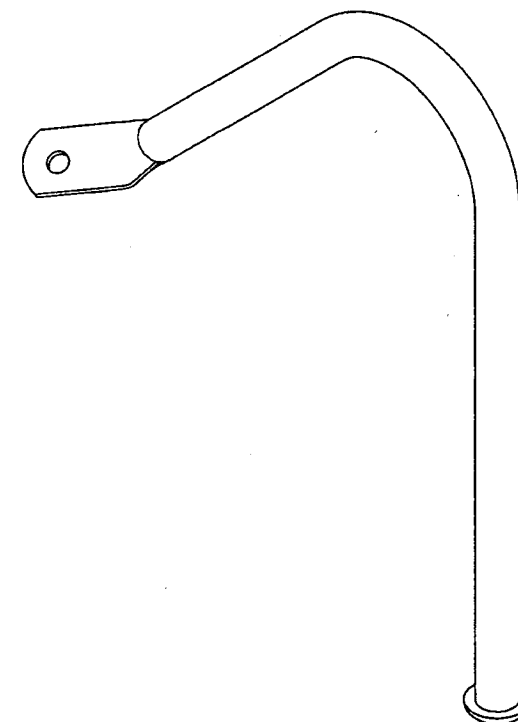
D2010-104 ARM

D	REDRAWN IN SOLIDWORKS; ADD D2010-1F FLAT PATTERN FOR D2010-101 (ZN B7-2); Ø0.500 X 0.049 WALL WAS Ø0.500 X 0.035 WALL (ZN B1-3, B1-4); REASON; TUBING CRACKING DURING SERVICE	PH	08.06.10
C	1.93 WAS 2.00; 0.50 WAS 0.62	KE	97.10.31
B	7.90 WAS 10.90	JB	92.03.17
A	NEW ISSUE	JB	90.12.15
REV.	DESCRIPTION	BY	DATE

DESIGN	JB	**DART AEROSPACE LTD**	
DRAWN	PH	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. D
MFG. APPR.		D2010	SHEET 1 OF 4
APPROVED		TITLE	SCALE
DE APPR.		**MIRROR BRACKET**	NTS
DATE	08.06.10		

QTY -101	P/N	DESCRIPTION
X	D2010-101	**MIRROR BRACKET**
1	D2010-1	BRACKET
4	FE-032-EF	INSERT

3.28

R0.38
TYP

R3.56
2 PL

5.81

∅0.201
4 PL

∅0.290
4 PL

℄ 1.375 6.302

7.05
REF

0.75
TYP

GRAIN
DIRECTION

0.38
REF

5.810

6.56

D2010-1F FLAT PATTERN ⟨D⟩

AFTER FINISH,
INSTALL FE-032-EF INSERTS
4 PL

D2010-1 BRACKET
(MAKE FROM D2010-1F)

3.18

0.50

0.50

1.93

R0.25
TYP

45°
REF

⟨6⟩

D2010-101 MIRROR BRACKET

RELEASED
08·06·19
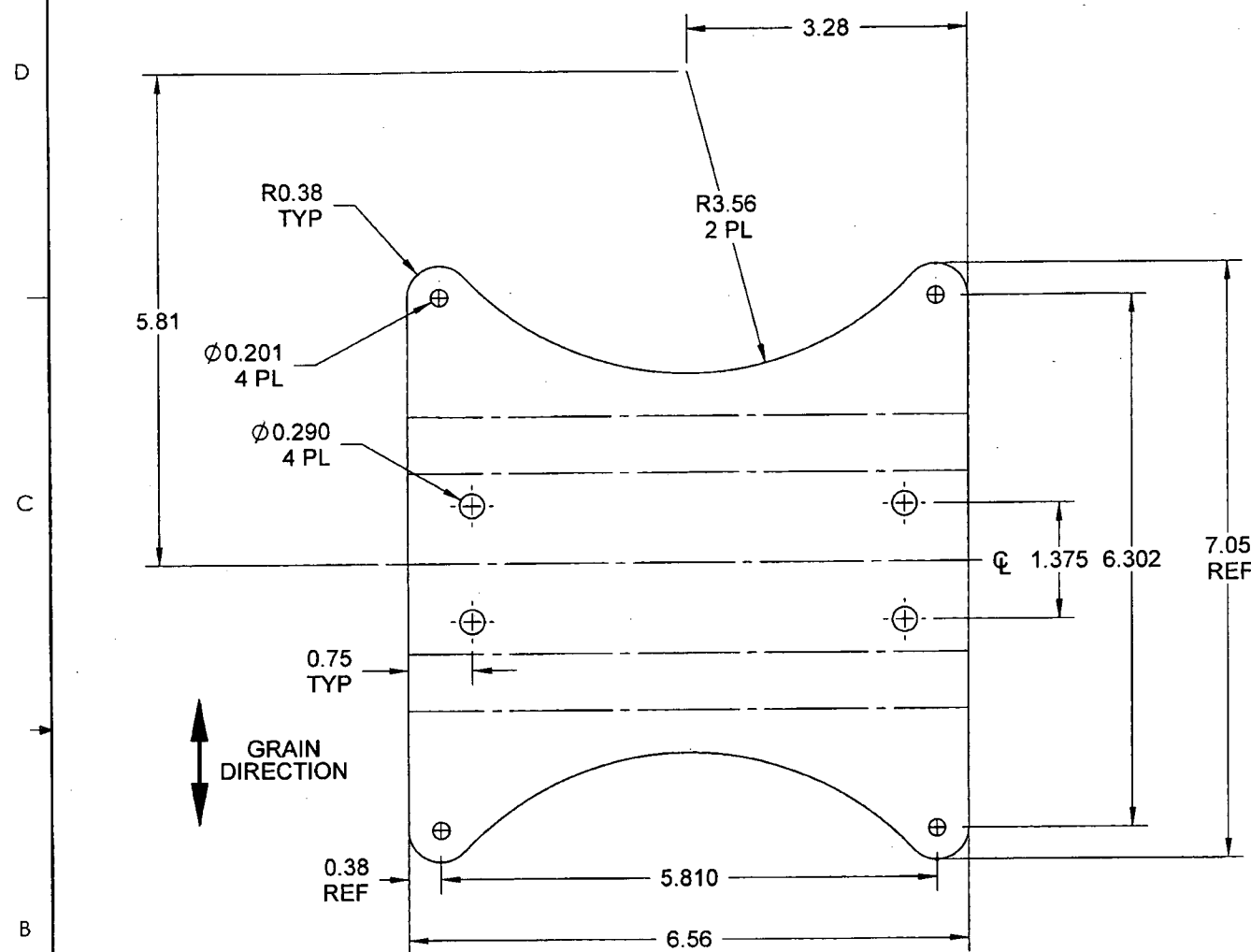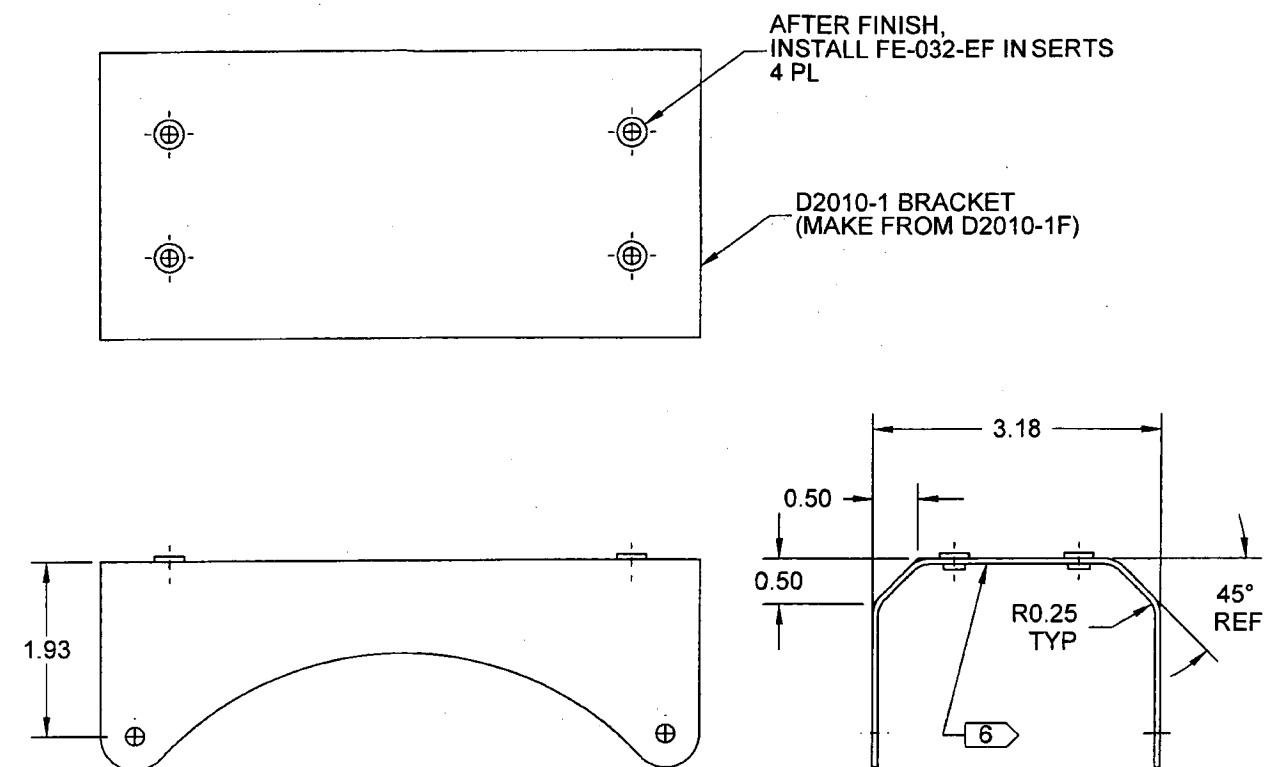
NOTES:
1) MATERIAL: D2010-1F: 2024-T3 ALUMINUM SHEET, 0.063 THICK PER AMS-QQ-A-250/4 OR AMS 4037
        (REF DART SPEC M2024T3S.063)
2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
        POWDER COAT BLACK SANDTEX (4.3.5.7) PER DART QSI 005 4.3
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: IDENTIFY WITH DART P/N "D2010-101" USING WHITE FINE POINT PERMANENT INK MARKER OR LABEL
7) WEIGHT: 0.23 lbs

DESIGN	JB	**DART AEROSPACE LTD**	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. D
MFG. APPR.		D2010	SHEET 2 OF 4
APPROVED		TITLE	SCALE
DE APPR.		MIRROR BRACKET	NTS
DATE	08.06.10		

QTY -103	P/N	DESCRIPTION
X	D2010-103	ARM
1	D2010-3	ARM
1	D2057	PLUG

D2010-3 ARM

45°

D2057 PLUG

R0.25 MIN

1.20

VIEW B-B

A

A

A

A

B

B

55° REF

PUNCH PER D2727

VIEW A-A

45°

7.90

R1.50

10.20

BEND AND FORM PER DART TEMPLATE D2010-103T2

FLARE ∅0.600 X 37°

PRESS FIT D2057 PLUG
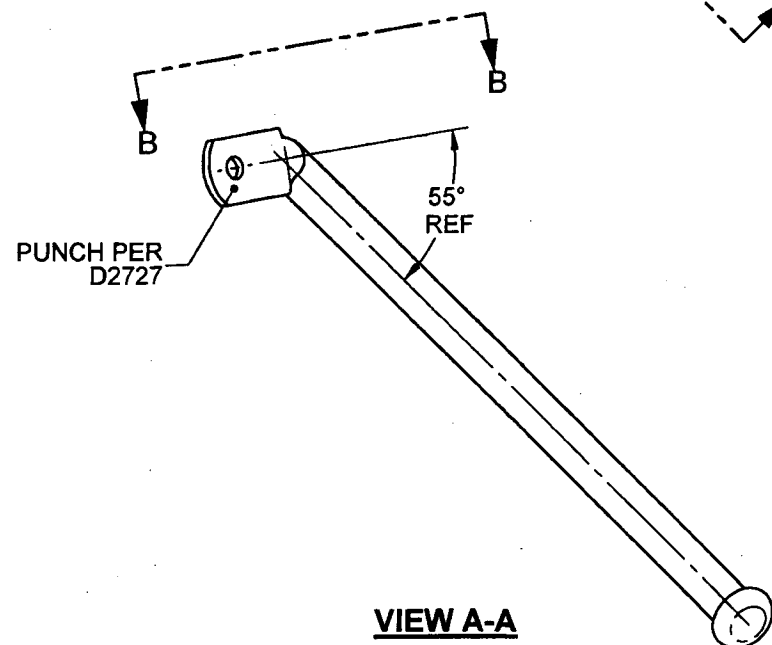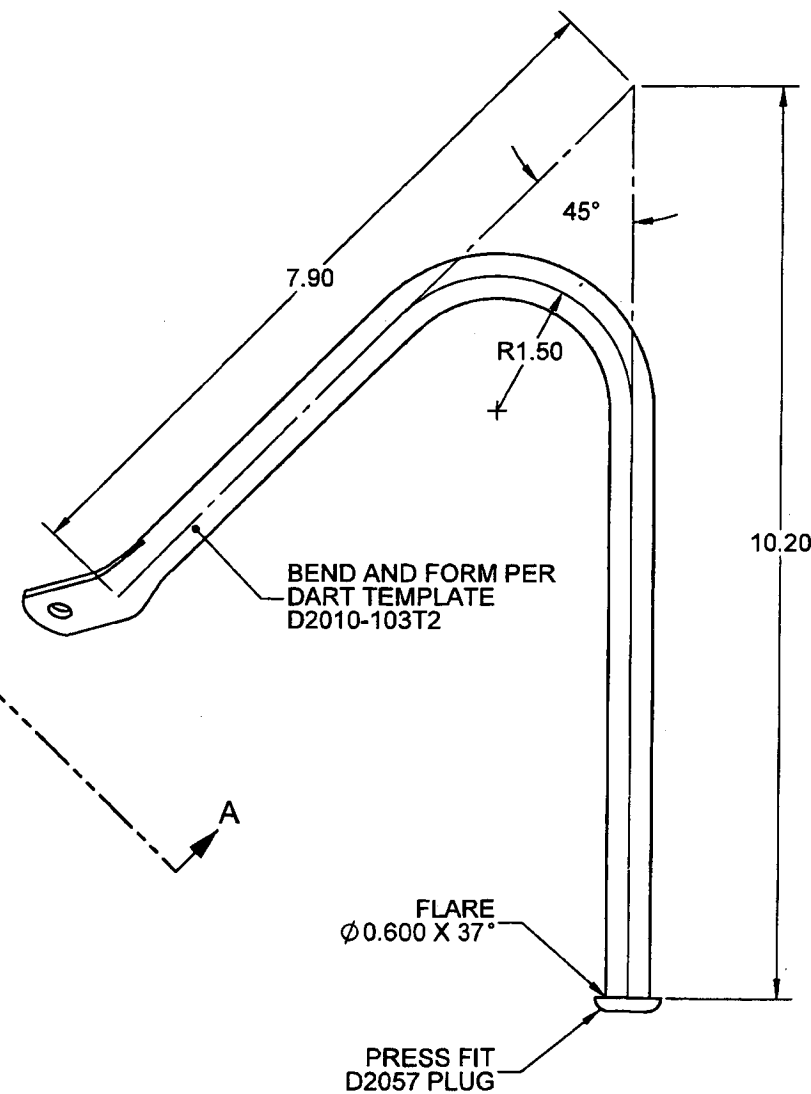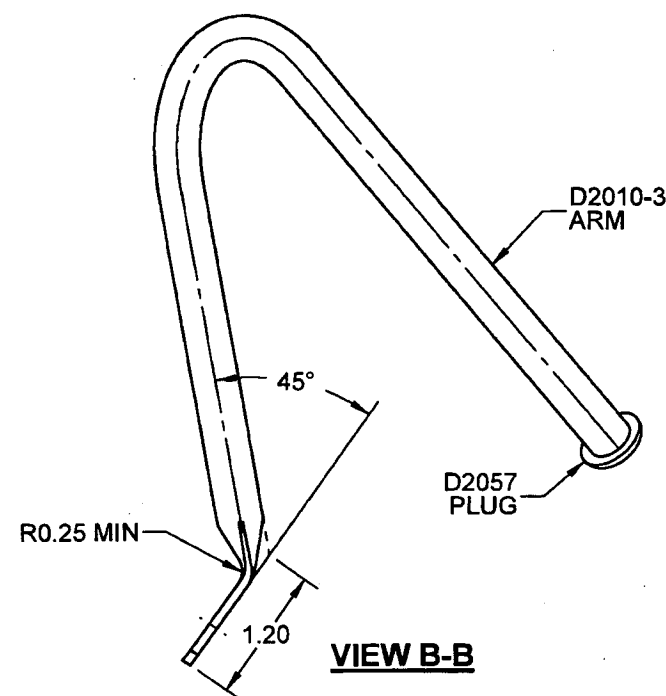
D2010-103 ARM

NOTES:
1) MATERIAL: D2010-3: AISI 304/316 SS SEAMLESS ROUND TUBING, ∅0.500 X 0.049 WALL (REF DART SPEC M304TR0.500W.049) ⟨D⟩
2) FINISH: POWDER COAT BLACK SANDTEX (4.3.5.7) PER DART QSI 005 4.3
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: IDENTIFY WITH DART P/N "D2010-103" USING WHITE FINE POINT PERMANENT INK MARKER
7) WEIGHT: 0.34 lbs

RELEASED
08.06 R/W

DESIGN	JB	**DART AEROSPACE LTD**	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED	PH	DRAWING NO.	REV. D
MFG. APPR.		D2010	SHEET 3 OF 4
APPROVED		TITLE	SCALE
DE APPR.		MIRROR BRACKET	NTS
DATE	08.06.10		

QTY -104	P/N	DESCRIPTION
X	D2010-104	ARM
1	D2010-4	ARM
1	D2057	PLUG

45°

7.90

R1.50

10.20

BEND AND FORM PER
DART TEMPLATE
D2010-104T2

PUNCH PER
D2727

FLARE
∅0.600 X 37°

PRESS FIT
D2057 PLUG

D2010-104 ARM

D2010-4
ARM

R0.25 MIN

1.20

45°

D2057
PLUG

VIEW D-D

D

C

55°
REF

D

C

VIEW C-C
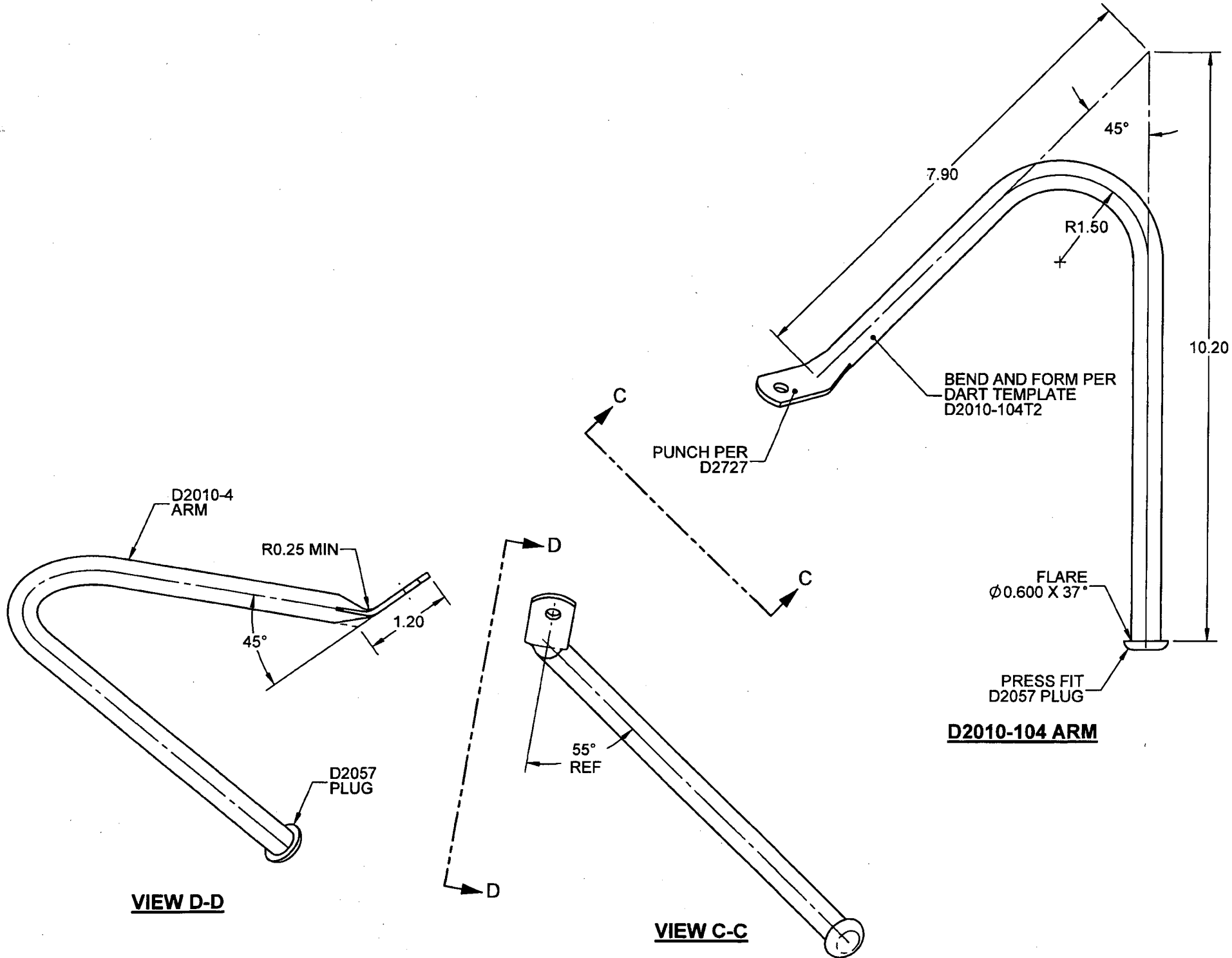
NOTES:
1) MATERIAL: D2010-4: AISI 304/316 SS SEAMLESS ROUND TUBING
   ∅0.500 X 0.049 WALL
   (REF DART SPEC M304TR0.500W.049) /D\
2) FINISH: POWDER COAT BLACK SANDTEX (4.3.5.7) PER DART
   QSI 005 4.3
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: IDENTIFY WITH DART P/N "D2010-104" USING
   WHITE FINE POINT PERMANENT INK MARKER
7) WEIGHT: 0.34 lbs

DESIGN	JB	**DART AEROSPACE LTD**	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED	PH	DRAWING NO.	REV. D
MFG. APPR.		D2010	SHEET 4 OF 4
APPROVED		TITLE	SCALE
DE APPR.		MIRROR BRACKET	NTS
DATE	08.06.10		

הע.
12.0.25
8.8